# WAR ECONOMY in FOOD

with

Suggestions
and
Recipes

for

SUBSTITUTIONS in the PLANNING of MEALS



WASHINGTON
GOVERNMENT PRINTING OFFICE
JANUARY
1918

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## THE PRESIDENT'S CALL TO THE WOMEN OF THE NATION.

Washington, D. C., June 12, 1917.

My Dear Mr. Hoover: It seems to me that the inauguration of that portion of the plan for Food Administration which contemplates a national mobilization of the great voluntary forces of the country which are ready to work toward saving food and eliminating waste admits of no further delay.

The approaching harvesting, the immediate necessity for wise use and saving, not only in food, but in all other expenditures, the many undirected and overlapping efforts being made toward this end, all press for national direction and inspiration.

The women of the Nation are already earnestly seeking to do their part in this our greatest struggle for the maintenance of our national ideals, and in no direction can they so greatly assist as by enlisting in the service of the Food Administration and cheerfully accepting its direction and advice. By so doing they will increase the surplus of food available for our own Army and for export to the allies. To provide adequate supplies for the coming year is of absolutely vital importance to the conduct of the war, and without a very conscientious elimination of waste and very strict economy in our food consumption, we can not hope to fulfill this primary duty.

I trust, therefore, that the women of the country will not only respond to your appeal, and accept the pledge to the Food Administration which you are proposing, but that all men also who are engaged in the personal distribution of foods will cooperate with the same earnestness and in the same spirit. I give you full authority to undertake any steps necessary for the proper organization and stimulation of their efforts.

Cordially and sincerely, yours,

WOODROW WILSON.

Mr. Herbert C. Hoover.

## THE PLEDGE.

## PLEDGE CARD FOR UNITED STATES FOOD ADMINISTRATION.

IF YOU HAVE ALREADY SIGNED, PASS THIS ON TO A FRIEND.

To the Food Administrator:

I am glad to join you in the service of food conservation for our Nation and I hereby accept membership in the United States Food Administration, pledging myself to carry out the directions and advice of the Food Administration in my home, in so far as my circumstances permit.

	J J	-		
Name				 
Street				 
City			State	 
			_	

There are no fees or dues to be paid. The Food Administration wishes to have as members all of those actually handling food in the home.

Anyone may have the Home Card of Instruction, but only those signing pledges are entitled to Membership Window Card, which will be delivered upon receipt of the signed pledge.

## WAR ECONOMY IN FOOD.

## OUR PROBLEM AND ITS SOLUTION.

Ten million American homes—and more—have taken the pledge to help win the war by joining in the United States Food Administration—to send to our armies and the allies as much as we can of concentrated nutriment, the things which, in the shortage of shipping, take the least vessel room.

These things we must send—wheat, beef, pork, dairy products, sugar.

As we drew near to harvest the first home card of the Food Administration was sent to all members, saying the men of the allied nations are fighting; they are not on the farms. They consume more than ever; they produce less than before. Cut off from their other markets, they depend more than ever on America. They look to America for food as never before; they ask for it with a right they never had before, for they are our companions in the great war for democracy and liberty.

Wheat must be sent them, for their harvests are short. They can not take corn instead, seeing they have neither mills to grind corn nor ovens to bake it in, while they are already adulterating their white flour all they can and still make it into a loaf. We must send them part of our wheat to mix with their heavy war bread.

Meat must be sent them, for their herds are depleted. They have deliberately killed off their cattle for which they had no fodder.

Dairy products must be sent them in three and five and ten times their accustomed volume.

Sugar must be sent them, since they are cut off from all other sources, reduced to one-fourth of what we have been accustomed to use. When we have done all we are asked to do, we shall still allow ourselves nearly double the portion that is offered to France and England.

This we were told; we were told to use freely of what America had in abundance that we might release the stores of the few things we must share with the allies. We were told to study how to set our tables with the Nation's needs in view.

Ten million American homes have now taken the pledge to follow directions as new circumstances shape them from time to time; to cat poultry and fish in place of meat as may be necessary; potatoes and corn and rye in place of wheat; vegetable oils instead of animal fats, as the needs of the situation may indicate. And on definite days at definite meals, in accordance with the pledge to follow directions, this substitution is made in millions of homes.

Harvest is over now and the account of the year's increase is made up. A second card of directions is being issued to the homes of America.

## THE SITUATION BEFORE US.

The food situation in Europe is far graver than when the preliminary survey of the food supply of the world for this year was made. We have an abundance for ourselves, and it is the firm policy of the Food Administration, by the prevention of exports, to retain for our people an ample supply of every essential foodstuffs. The harvests of Europe have proved less than we had contemplated, and the great curtailment of shipping by the submarines during the last few months has further prevented them from access to more remote markets. Beyond the demands of the allies there is a call upon us by the friendly neutrals for food supplies, and if we can not at least in part respond to these neutral calls, starvation on an unparalleled scale must ensue.

Food has now taken a dominant position in the war, and we must ask the American people to sacrifice far more than was at first thought necessary. We have exported the whole of the surplus of the wheat from this harvest after reserving to ourselves an amount sufficient for our normal consumption of seed and flour until the next harvest, and therefore the amount of wheat flour that the United States can contribute to mix with the war bread of our associates in the war this winter will be simply the amount that our people reduce their consumption month by month. In other words, every grain of wheat or its products that the allies receive from the United States from now on will be exactly the amount which our people have saved each month on their behalf.

The allies to-day ask for 25 per cent more meat and fats (pork, dairy products, and vegetable oils) than we consider our monthly production permits us to send them without trenching on our own supplies, or, on the other hand, unless we can consume less. Due to the shortage in shipping, our available sugar supplies must be less than normal from the present time forward.

Thus every particle of diminished consumption by the American people is one particle more for the soldiers, men, women, and children of the nations fighting our war, and for the starving people in other countries. This is a personal obligation upon every one of us toward some individual abroad who will suffer privation to the extent of our own individual negligence.

If we are to reduce the consumption of the few products which we should export abroad, we will need to cat a larger proportion of many different foodstuffs which we can not export and which we have at home. For this reason we must not waste any foodstuffs. A great many individuals in our population eat far more food than is necessary to maintain their health and strength. In this emergency only the simplest of living it patriotic. We want no person in the United States to eat less than is required for good health and full strength, for in this emergency America requires every atom of the productive power of our people. While many can eat less, all of our population can substitute other foodstuffs for the few that are vitally needed for export.

We must not overlook the fact that Russia collapsed not because of the Germans on her borders, but largely because of the failure to organize and feed her own citizens, and, if we are to emerge victorious from this war, we can not risk the collapse of another of our defenders from this same cause. There is no waste of food among any of the allies—there is the most drastic reduction in their consumption; there is actual privation among their women and children; there is starvation in Belgium.

We have already issued a series of suggestions in the home card—a card that is now hanging in over ten millions of homes. These suggestions have already shown important results, and to these we now add others. The problem of saving in food is a local and individual one, so that more precise and definite rules just to all can not be formulated. It is a matter for the conscientious consideration of every individual that he or she should eat only that which is necessary to maintain bodily health and strength and unselfishly to select those foodstuffs the use of which relieves international necessities.

In this winter of 1918 lies the period when there will be tested in this great free country of ours the question as to whether or not our people are capable of voluntary individual self-sacrifice to save the world.

## FOLLOW THESE DIRECTIONS.

The Food Administration, aside from those general directions, asks everyone to maintain rigidly a minimum of at least:

One wheatless day each week and one wheatless meal each day; the wheatless day to be Wednesday. By wheatless we mean to eat no wheat products.

One meatless day each week, which shall be Tuesday, and one meatless meal each day. By meatless we mean to eat no red meat—beef, 31319°—18—2

pork, mutton, veal, lamb; no preserved meat—beef, bacon, ham, or lard.

One porkless day each week, in addition to Tuesday, which shall be Saturday. By porkless we mean no fresh or salted pork, bacon, lard, or ham,

Sugar.—You can materially reduce sugar by reducing the use of candy and sweet drinks. We will make every endeavor to see that the country is provided with a supply of household sugar on the basis of 3 pounds of sugar for each person per month. Do not consume more.

Human Foodstuffs Comprise Three Principal Elements:

Protein: Mainly present in meat, beans, fish, poultry, milk, and to some extent in grains.

Fats: That is, butter, cream, lard, bacon, margarine, cooking fats, cottonseed oil, and other vegetable oils.

Carbohydrates: Grains, sugar, potatoes and other vegetables.

As a nation we cat and waste 80 per cent more protein that we require to maintain health. Therefore, we can reduce the amount of meat we eat without harm.

We eat and waste 240 per cent more fat than is necessary.

Of the carbohydrates we can just as well consume corn, oats, and other cereals as wheat, and we have abundant supplies of potatoes and vegetables.

Do not limit your supplies of milk and table butter or cheese, but consume it all. Don't waste any.

You can reduce the consumption of fats by reducing pastry and fried foods.

Remember the gospel of the clean plate, the serving of small portions, the purchase of less supplies.

Hoarding.—Any person in the United States who buys more foodstuffs than he customarily keeps at home in peace times is defeating the Food Administration in its purpose to secure a just distribution of food and in its great endeavors to reduce prices. The hoarding of food in households is not only unnecessary, as the Government is protecting the food supply of our people, but it is selfish and is a cause of high prices.

Such actions, multiplied by thousands, increase the demands upon our railways for cars and already, because of our military demands, it is with extreme difficulty that we can now move the vitally necessary food to markets.

There is much insidious propaganda in the country against conservation and increased production. All opposition to these services is direct assistance to the enemy.

## SUGGESTIONS FOR SUBSTITUTIONS IN PLANNING MEALS.

The question of planning meals grows daily more important, because it is more evident that food is to win or lose the war.

The housewife is in an especially trying position. The needs of her family and the requests of the Food Administration seem at first glance at variance. The word "save" has been over-emphasized in the public mind and the word "substitute" overlooked. A closer study reveals the fact that what the Food Administration really wishes and the allies really need is that we restrict ourselves in the use of a few staples and encourage the wise use of many. From that viewpoint the housewife has left a large and varied supply of food from which to select nourishment adapted to the wishes and needs of her family and to the condition of her pocketbook.

#### LET ES REMEMBER.

Let us remember that every flag that flies opposite the enemies' is by proxy the American flag, and that the armies fighting in our defense under these flags can not be maintained through this winter unless there is food enough for them and for their women and children at home. There can be food enough only if America provides it. And America can provide it only by the personal service and patriotic cooperation of all of us.

he soldiers need—	The folks at home can use—
Wheat.	Corn.
	Oats.
	Barley.
	Rye.
Butter.	Cottonseed oil.
Lard.	Peanut oil.
	Corn oil. For cooking.
	Drippings,
Sugar.	Molasses.
	Honey.
	Sirups.
Bacon.	Chicken.
Beef.	Eggs.
Mutton.	Cottage cheese.
Pork.	Fish.
	Nuts.
	Peas.
	Beans.

The following are offered in the hope that they may be helpful to those seeking aid:

## WAR-TIME ECONOMY.1

- 1. Choose food wisely.
- 2. Store it properly.
- 3. Cook it carefully.
- 4. Serve it attractively.

Don't give the new dishes a black eye by having too many of them at once. Use all the ingenuity you have to make them both taste and look well.

Food habits, like other habits, are not easily changed. Lead gently into the new realm.

## FIVE RULES FOR WISE BUYING.

- 1. Don't begin to save on milk.—Children must have it; adults ought to. Milk builds bone and muscle better than any other food.
- 2. Spend at least as much for milk as for meat.—Remember that a quart of milk is equal in food value to a pound of steak. "A quart of milk a day for every child" is a good rule—easy to remember. At least try to provide a quart of milk a day for every member of the family.
- 3. Spend at least as much for vegetables and fruits as for meat and fish.—Fresh vegetables and fruit can not well be sent abroad to the Army, a free use of them makes your family dietary better; if purchased in season and of the sorts grown in your own locality they need not be expensive.
- 4. Use breadstuffs more or less freely, according to your desire for economy.—The cereals and breadstuffs are usually the most economical of all the foods. The Food Administration does not ask you to use less bread but less wheat in your bread. (See recipes for wheat-saving breads, pp. 16-20.)
- 5. Be sparing in the use of meats.—These are usually the most expensive of the staple foods in proportion to their food value, and are not strictly necessary when a proper amount of milk is used. Meat may be decreased with less harm than any of the other foods mentioned. The amount spent for meat may decrease as the amount for milk increases.

## MEAL PLANS.

Study your meals. Plan them for at least three days in advance. This helps you to buy to better advantage, gives variety in material and preparation.

<sup>&</sup>lt;sup>1</sup> Economy means wise expenditure of time, money, or energy. Waste is failure to use food materials to the best advantage.

Ask yourself the following questions about your meal: Does this plan mean—

- (1) The use of home-grown products and thus allow the railroads to be hauling supplies for the Army instead of food for my family?
- (2) The exchange of milk, cheese, eggs, fish, game, beans, nuts, and peas for beef, mutton, pork?
- (3) The use of barley, buckwheat, corn, oats, potatoes, and rye instead of wheat?
  - (4) Plenty of whole milk for the children?
- (5) Twelve ounces of fat per adult per week and six ounces per child per week? The substitution of the vegetable fats wherever possible?
- (6) The substitution of honey, molasses, corn sirup or other sirup for sugar, so as to reduce the amount of sugar used to three pounds or less per person per month?
- (7) Meals adapted to the season and pocketbook? Have they character, color, flavor?
- (8) Meals which include at least one food from each of the following classes, except III?

## FOOD CLASSES.

- Group I. Protein.—Dried beans, eggs, meat, milk, peas, bread.
  - II. Starch.—Cereals, potatoes, tapioca.

CHOOSE WISELY

- III. Sugar.—Desserts, honey, jellies, dried fruits.
- Fats.—Butter, cream, corn oil, peanut oil, and cottonseed oil, oleomargarine.
  - V. Regulators, mineral salts, and acids.—Fruits, vegetables, milk.

SERVE NICELY

# HELP IN PLANNING MEALS.

Following are sample menus illustrating the proper selection of food from the five

principal classes	:	0 1	•	
Protein	Starches	Sugars 1	Fats	Minerals and Cellulose
		BREAKFAST.		
Whole milk.	Oatmeal with dates. Rye toast.		Butter or Oleomargarine.	Stewed prunes.
		DINNER.		
Bean and nut loaf.	Hot corn bread. Brown potatoes.	Sirup.	Butter or Oleomargarine.	Stewed tomatoes,
		SUPPER.		
Cream of pea soup.	Baked potatoes. Rye bread.	Oatmeal cookies.	Butter or Oleomargarine.	Celery. Baked apples.
		HREAKFAST.		
Whole milk.	Hominy grits. Oatmeal muslins.	Sirup.	Butter or Nut butterine.	Orange.

<sup>1</sup> The needs for this class can be met largely by substitutes.

Protein	Starches	Sugars	Fáts	Minerals and Cellulose
		DINNER.		
Rice and tomato with a little Hamburg steak.	Stuffed potatoes.	Gingerbread (corn meal).	Butter or Nut butterine.	Cold slaw.
		SUPPER.		
Cottage cheese salad.	Scalloped corn. Rye bread. Corn-meal wafers.		Butter or Nut butterine.	Oatmeal brown betty.
		BREAKFAST.		
Whole milk.	Buckwheat cakes. Barley bread.	Sirup.	Butter or Substitute.	Stewed apricots.
DINNER.				
Fish chowder.	Corn-ineal batter bread.		Butter or Substitute.	Beets, boiled. Fruit salad.
SUPPER.				
Baked hominy and cheese.	Oatmeal yeast bread.	War cake.	Butter or Substitute.	Boiled onions.

## SUGGESTIONS FOR CONSERVATION IN COURSE DINNERS AND LUNCHEONS.

SOUPS.

Oyster.

Lobster.

Cream ¹ of vegetable.
Clam.

ENTRÉES.

Omelets.

Any fish—with lemon or tomato Shellfish. Mushrooms.

MEATS.

Chicken, Goose. Squab.
Fish. Pheasant. Turkey.
Duck. Rabbit. Venison.

SALADS.2

Cottage cheese, Fruits and cheese, Nuts, Fish. Vegetables.

## DESSERTS.

Gelatin jellies with fruits and nuts.
Cereals molded with dates and raisins.
Fresh or stewed dried fruits.
Blancmanges.
Tapioca creams with fruits.
Ices sweetened with maple sirup or homey.

Date and fig puddings, using oatmeal or barley flour.
Buckwheat shortcake with fruit.
War cake (boiled raisin cake).
Spiced oatmeal cakes.
Corn meal cookies.
Tarts—crust of corn meal or oatmeal.
Oatmeal macaroons.

<sup>1</sup> Use skim milk and vegetable fat and cornstarch.

<sup>&</sup>lt;sup>2</sup> Served with boiled dressing or vegetable oil or fruit juice and honey.

PIES.

Mock mince—green tomatoes.

Pumpkin or cream with corn meal Raisin.

At formal dinners no white bread is served.

No butter is served at social luncheons and dinners.

Use no toast as garnish.

Use no crontons.

Use no bacon for trimming.

Use left-over meats, minced or in stews.

Use vegetables in omelets.

Use potatoes in many forms—stuffed, puffed, scalloped with cheese.

### LUNCHEON.

Any of the foods suggested above, using as the main dish such meatsaving dishes as the following:

Bean loaf.

Nut loaf.

Nut and cottage-cheese loaf.

Baked hominy and cheese.

Baked rice and cheese (adding tomato, pimento, or any vegetable desired for flavor).

Eggs with mushrooms.

Eggs scrambled with vegetables.

Fish chowder.

## Wheat-saving breads as—

Quick breads, muffins, etc., using cornmeal, buckwheat, rye, oatmeal, and dried fruits if desired.

Yeast bread, using any of the cereals mentioned above and no fat.

## WHEAT SAVING.

We must cut down our own use of wheat one-fourth if we are to have enough to send the allies. Therefore study these suggestions:

Substitute flour or meal made from any other grain for at least one-fourth of the wheat you would ordinarily use.

Use white potatoes, sweet potatoes, rice, squash, and pumpkin as substitutes for the wheat flour.

Use what is available in your community.

Those who can save more than the one-fourth will help make up for those who can not or are not willing to do their share.

The quick breads can be made so as to save from half to all the wheat.

The use of whole wheat and graham flours is not regarded as saving wheat.

#### SAVE BREAD.

Cut it on the table, so that none is left to dry.

Do not have stale bread.

Do not use toast as a garnish or serve food on toast.

If there are bits of bread left, dry and grind or pound, using the crumbs in place of flour.

Do not use crackers made from wheat (or graham) flour, or serve croutons with soup.

Do not use breakfast cereals made from wheat.

If you use macaroni, spaghetti, any Italian paste or noodles, remember that it is made of wheat and do not serve bread at the same meal.

Use cornstarch or rice flour for thickening sauces and gravies and in puddings. (Use half as much as you would of flour.)

Remember bread made of mixed flours is better body-building material than that made from one grain alone.

## MODIFY YOUR OWN RECIPES.

If you have good recipes for bread of any kind, make them conform to food conservation by omitting sugar and fat and by using at least one-fourth wheat substitute. The recipes below tell how to use or add the substitutes. Try for yourself with your own recipe. Many people think milk is necessary for good bread, but it is not, although it of course adds to the food value, and is therefore advisable when it can be afforded. Water, milk and water, whey, potato water, or rice water may be used for the liquid.

In using part other grains than wheat the loaf will be as nourishing, but usually not so large or light.

All measures in these recipes are level. The flour is measured after sifting.

## YEAST.

Because of the high price of yeast it may be economical when bread is made frequently or in large quantities to prepare liquid yeast. In making the bread the amount of yeast used, of whatever kind, will depend upon the time in which the process is to be carried through.

## LIQUID YEAST.

4 medium-sized potatoes.
1 quart hot water.
1/4 cup sugar.
1 teaspoon salt.

of warm water, or 1 cake of compressed yeast.

1 cake dry yeast, softened in 1/4 cup

Wash, pare, and cook the potatoes in the water. Drain, mash, and return to the water. Make up to 1 quart. Add the sugar, and

salt and allow the mixture to cool. When lukewarm add the yeast. Keep at room temperature (65° to 70° F.) for 24 hours before using. If kept for a longer time it should be poured into a sterilized jar and put in a dark, cool place.

Each of these recipes makes one loaf. The weight of the different

breads will vary from 18 ounces to 23 ounces.

### CORN MEAL YEAST BREAD.

1½ cups liquid. ½ to ¼ yeast cake. 1½ teaspoons salt. 2½ cups flour.¹
% cup corn meal, white or yellow.

Note.—One-fourth cup of liquid yeast may be used in place of the ¼ yeast cake, and ¼ cup of liquid when making bread by the short process. If dry yeast is used the long process must be followed or a liquid yeast prepared. For the long process sponge method, ½ cake of compressed yeast or 2 tablespoons of liquid yeast is sufficient. For the short process use more yeast.

## LONG PROCESS.

1. Soften the yeast in ½ cup of lukewarm water. Add ¾ cup of white flour. Beat thoroughly, cover, and if the sponge is to stand over night, let rise at room temperature (about 65° to 70° F.) and at 80° to 85° F. if the time is to be shortened. When this sponge is so light that the slightest touch causes it to fall it is ready for the addition of the other ingredients.

2. Stir the corn meal into the remaining cup of salted water and heat to the boiling point over the direct flame. Cook 20 minutes in a double boiler or over hot water. Cool until it feels warm to the

hand (about 90° to 95° F.).

3. Beat the cooked corn meal into the light sponge prepared as directed above. Add gradually sufficient flour to make a dough somewhat stiffer than for ordinary bread.<sup>2</sup> It is impossible to give the quantity of flour exactly, because different samples of flour may not absorb the same amounts of liquid. Knead a few minutes until the dough is smooth and elastic, cover and let rise at a temperature of about 80° F., until double in bulk. Then shape into a loaf, cover and let rise in the pan until double in bulk. Bake 50 to 60 minutes, starting in a hot oven (450° F.) and lowering the temperature gradually at the end of 10 minutes. A pan of water set in the oven will keep the air moist and give a soft brown crust. If the pan of water is not used the temperature should be lower (425° F.).

<sup>1</sup> More if needed.

<sup>2</sup> The long process usually produces better results in this bread.

## SHORT PROCESS.

Cook the corn meal in 1½ cups of liquid, cool to about 90° F., add the yeast softened in the remaining ½ cup of liquid (or the liquid yeast) and flour to make a stiff dough. Proceed from this point as directed above.

## BREAD MIXER.

In following either of these methods any of the commercial bread mixers may be used.

## OATMEAL BREAD.

1 cup liquid.

1½ teaspoons salt.

1 cup rolled oats.

1/8 to 1/4 yeast cake, softened in 1/4 cup lukewarm water.

2½ cups flour.

## LONG PROCESS.

Scald the liquid, add salt and pour it over the rolled oats in a bread mixer or mixing bowl. Cool slowly. Add the yeast and 1 cup of flour. Cover and allow the sponge to rise as directed in the recipe for corn-meal bread. When light, add the remainder of the flour, knead, cover and let rise until double in bulk. Shape into a loaf, cover, let rise again until it doubles in bulk and bake.

## SHORT PROCESS.

Follow the directions as given above, but add all the flour at one time, after the oatmeal has soaked ½ hour.

## POTATO BREAD.

1½ cups mashed potato (packed solid).

(packed \ \frac{1}{8} to \frac{1}{4} yeast cake softened in 2 tablespoonfuls lukewarm water.

1½ teaspoonfuls salt.

2¼ cupfuls flour—more or less flour may be needed.

Note.—Mashed sweet potato or cooked cereal or squash may be used in the same way as the Irish potato. In using any substitute which has a marked flavor it is better to try the bread first with less than 1½ cups and add more liquid. Squash rolls are very good.

## LONG PROCESS.

Cool the mashed potatoes to lukewarm, add the salt and yeast softened in the warm water and about 1/4 cup of flour. Mix well, cover and let rise until very light.

To the well-risen sponge, add the remaining flour, kneading thoroughly. The dough should be very stiff, as it softens considerably in rising. Cover and let rise until double in bulk. Shape into a loaf, cover, let rise again until it has increased 2½ times in bulk, and bake.

#### SHORT PROCESS.

Follow the directions as given above, but add all the flour at once. The dough in this case is so stiff that it is difficult to work in all the flour.

#### RYE BREAD.

1 cup liquid.	2½ cups white flour. 2½ cups rye flour.
1 teaspoonful salt.	21/4 cups rye flour.
1/8 to 1/4 cake yeast, softened in 1/4	
cup lukewarm water	

Note.—The proportion of rye flour used may be increased to 3 cups of rye flour and 34 cup of white if desired. This dough is soft and can be made into the old-fashioned flat loaf.

## LONG PROCESS.

Scald the liquid, cool to lukewarm, add the salt, yeast, and half the flour. Beat thoroughly, cover and let rise until very light. Then add the remainder of the flour, knead, cover and let rise until double in bulk. Shape into a loaf, cover and let rise again until double in bulk and bake.

### SHORT PROCESS.

Follow the directions as given above, but add all the flour at once. This same method may be used for bread in which buckwheat flour is used. It may be substituted for ½ to ¾ of the wheat flour. The buckwheat bread is dark and has a characteristic flavor.

#### BARLEY BREAD.

1 cup liquid.		1 21/2 cups white flour.
1 teaspoon salt.		$2\frac{1}{6}$ cups white flour. $1\frac{1}{6}$ cups barley flour.
1/2 to 1/4 cake yeast softened	in 1/4	
cup lukewarm water.		

## LONG PROCESS.

Scald the liquid, cool to lukewarm, add the salt, the softened yeast and half the flour. Beat thoroughly, cover and let rise until very light. Then add the remainder of the flour. Knead, cover, and let rise until double in bulk. Shape into a loaf, cover, and let rise again until double in bulk. Bake.

## SHORT PROCESS.

Follow the directions as given above, but add all the flour at once.

## PEANUT BREAD.

```
1 cup liquid.
1 teaspoon salt.
2 cups flour (more if desired).
3 cups flour (more if desired).
4 to ¼ cake yeast softened in ¼ cup lukewarm water.
1 or 2 tablespoons sirup.
1 cup peanut meal, or flour.
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<sup>&</sup>lt;sup>1</sup> Peanut meal may be prepared by shelling toasted peanuts, removing red skin, and crushing the nuts with a rolling pin.

## LONG PROCESS.

Follow the directions given for the long process under corn-meal bread, making the sponge with part of the liquid and flour, salt and yeast. When light add the rest of the liquid, the sirup, the peanut meal and the remainder of the flour. Knead until smooth and elastic, adding more flour if necessary to secure the proper consistency. Cover and let rise until double in bulk. Shape into a loaf, cover and let rise until 2½ times the original bulk. Bake 50 to 60 minutes in a moderately hot oven (400° F.).

## SHORT PROCESS.

Dissolve the salt and sirup in the cup of lukewarm liquid. Add to it the softened yeast and add all to the mixture of flour and peanut meal. Knead until smooth and elastic. From this point follow the directions as given for long process.

## QUICK BREADS.

## OATMEAL MUFFINS. (10-12 muffins.)

1½ cups milk.1 tablespoon melted fat.2 cups rolled oats.1 cup flour.1 egg.4 teaspoons baking powder.

2 tablespoons molasses. 34 teaspoon salt.

Pour hot milk over the oats and let soak about one-half hour. Add the beaten egg, molasses, and melted fat. Finally add dry ingredients, which have been sifted together. Bake in greased mussin tins one-half hour in a moderately hot oven.

## COOKED CEREAL MUFFINS. (10-12 Muffins.)

1½ cups flour.
4 teaspoons baking powder.
34 teaspoon salt.
1 cup cooked rice.

1½ cup milk.
1 egg.
1 tablespoon melted fat.

Sift together the dry ingredients. Add the milk, beaten egg, and melted fat to the tooked rice. Beat thoroughly. Finally add the sifted dry ingredients. Mix well. Bake in greased muffin tins about one-half hour in a moderately hot oven.

Other cooked cereals or mashed potatoes may be used in this recipe. If the dough is too soft, add a little more flour; if too thick, a little more liquid.

## BUCKWHEAT MUFFINS. (10-12 Muffins.)

1 cup buckwheat.
1 cup wheat flour.
1 teaspoons baking powder.
2 teaspoon sells.
1 tablespoon melted fat.

34 teaspoon salt. 2 tablespoons molasses.

Sift together the dry ingredients. Combine the milk, beaten egg, melted fat, and molasses. Add the liquid to the dry ingredients. Mix well and bake one-half hour in a moderately hot oven.

Rye flour or 1 cup of barley meal and 1 cup of wheat flour may be used in this recipe if the liquid is reduced to 1 or  $1\frac{1}{2}$  cups. The buckwheat flour absorbs more liquid than other flours.

If you can get corn flour, barley flour, rye meal, peanut flour, soybean meal, a great variety of muffins can be made. Combinations of  $\frac{1}{3}$  barley flour,  $\frac{1}{3}$  corn flour, and  $\frac{1}{3}$  wheat flour, or  $\frac{1}{2}$  rye meal,  $\frac{1}{4}$  corn meal, and  $\frac{1}{4}$  wheat flour have been found satisfactory.

## CORN DODGERS. (Makes 14 biscuits.)

2 cups corn meal.
2 teaspoons fat,
1 teaspoon salt.
2 teaspoons fat,
1% cups boiling water,

Pour the boiling water over the other materials. Beat well. When cool, form into thin cakes and bake one-half hour in a hot oven. These crisp biscuits are good served hot with butter or gravy.

## CORN-MEAL BREAD.

1½ cups corn meal.	2 cups milk. 1 egg.¹
4 teaspoons baking powder.	1 egg. <sup>1</sup>
1 teaspoon salt.	1 tablespoon melted fat.
1 tablespoon flour.	

Mix and sift the dry ingredients. Combine the milk, beaten egg, and melted fat, and add to the dry ingredients. Mix well, pour into greased muslin tins or shallow pans, and bake in a hot oven about 20 minutes. This bread should be served hot.

If a softer bread is desired, the corn meal, salt, and milk may be brought to a boil and cooked for 10 minutes in a double boiler or over hot water. Cool, add the beaten egg, melted fat, and baking powder. The flour is not necessary. Beat well and bake in a hot oven. This same mixture may be baked as griddle cakes.

## GRIDDLE CAKES.

1 cup milk.	½ cup flour.
1 egg.	¾ teaspoon salt.
1 tablespoon melted fat.	4 teaspoons baking powder.
1% cups cooked oatment.	

Combine the milk, beaten egg, and melted fat. Beat this into the cooked oatmeal. Add the flour, salt, and baking powder, which have been sifted together. Bake on a hot, greased griddle.

Other cooked cereals, mashed Irish potatoes, sweet potatoes, etc., may be used in place of the oatmeal. When rice is used, 1/4 cup more flour is necessary.

Griddle cakes may also be made using ½ or more of corn meal or buckwheat flour.

If desired, sour milk may be substituted in these recipes for the sweet. In doing this the quantity must usually be increased a little. Use ½ teaspoon of soda for each cup of sour milk. For each ½ teaspoon of soda the quantity of baking powder can be reduced by 2 teaspoons.

## CORN MEAL CRISPS. (Salad wafers.)

½ cup corn meal.1 tablespoon fat.½ cup wheat flour.3 tablespoons milk (about).½ teaspoon salt.

Sift together the dry ingredients. Cut the fat into the flour and add sufficient liquid to make a dough that can be rolled thin. Cut into diamonds or other shapes. Bake in a quick oven until golden brown. This makes 60 to 65 wafers 2 by 2 inches.

If desired, after rolling out the dough, sprinkle with grated cheese and paprika. Make into cheese straws.

## MEAT SAVING.

Meat saving is to be accomplished in various ways:

- 1. By doing without pork, beef, mutton, yeal, and lamb.
- 2. By using meat less frequently. In "meatless days."
- 3. By serving smaller portions.
- 4. By using meat extenders, such as a dish of rice, tomatoes, and a *little* meat.
- 5. By using substitutes such as cheese, eggs, fish, game, poultry, dried beans, and peas.

## MEAT EXTENDERS.

#### TAMALE PIE. (Serves six.)

2 cups corn meal.
2½ teaspoons salt.
6 cups boiling water.
1 onion.
1 tablespoon fat.

1 pound Hamburger steak.2 cups tomatoes.½ teaspoon cayenne pepper, or1 small chopped sweet pepper.

Make a mush by stirring the corn meal and 1½ teaspoons salt into boiling water. Cook in a double boiler or over water for 45 minutes Brown the onion in the fat, add the hamburger steak and stir until the red color disappears. Add the tomato, pepper, and remaining salt. Grease a baking dish, put in a layer of corn meal mush, add the seasoned meat, and cover with mush. Bake 30 minutes.

#### BEEF STEW.

1 pound beef.
4 potatoes cut in quarters.
4 peck green peas or 1 can.

1 cup carrots cut up small,
1 teaspoon salt.

Cut meat in small pieces and brown in the fat from the meat. Simmer in 2 quarts of water for 1 hour. Add the peas and carrots and cook for one-half hour, then add the potatoes. If canned peas are used, add them 10 minutes before serving. Serve when potatoes are done.

#### VARIATIONS.

- 1. The meat.—This may be any kind and more or less than a pound may be used. Use the cheap cuts, the flank, rump, neck, or brisket. The long, slow cooking makes them tender. Game and poultry are good.
- 2. Potatoes and barley may be used or barley alone, or rice, hominy, or macaroni.
- 3. Vegetables.—Carrots, turnips, onions, peas, beans, cabbage, to-matoes are good, canned or fresh. Use one or more of these, as you wish.
- 4. Parsley, celery tops, onion tops, seasoning herbs, or chopped sweet peppers add to the flavor.
- 5. Many left-overs may be used—not only meat and vegetables but rice or hominy.

## SUBSTITUTES.

#### FISH CHOWDER.

A 3-pound fish.
4 tablespoons drippings.

1 medium onion, chopped fine,

1 quart sliced potatoes.

3 cups hot milk.

Skin and bone the fish, and cut into inch cubes. Cover the bone and trimmings with cold water and let simmer for one-half hour. Cook the onion in the fat for 5 minutes, then pour into a stew pan.

Parboil the sliced potatoes for 5 minutes, then drain and add layers of fish and potatoes to the fat and onion in the stew pan. Season each layer with salt and pepper.

Strain the liquor in which the fish bones have been cooking over all, and cook about 20 minutes until fish and potatoes are tender. Then add the scalded milk. If desired thicker, sprinkle a little corn meal between each layer of fish and potatoes.

#### BAKED SALT FISH.

2 cups salt fish (flaked).2 cups cold mashed potatoes.

1 pint milk.

2 eggs.2 to 3 tablespoons of drippings.

Soak the flaked fish in cold water over night or freshen the fish by boiling up several times in fresh water (usually three times is sufficient). Then simmer until tender. Drain off the water. Mix the potatoes with the milk, eggs, fat, and seasoning. Add the fish, turn into a greased baking dish, and bake one-half hour.

## BROILED SALT MACKEREL.

Freshen the fish by soaking 10 to 12 hours with the skin side up. Change the water several times. Simmer until tender (15 to 20 minutes) in water to which I teaspoon of vinegar, a bay leaf, one slice of onion, and a sprig of parsley have been added. Drain, rub the fish with a little salt and margarine or other fat. Grease the hot broiler and lay the fish on it. Brown on both sides quickly. Garnish with slices of lemon and parsley.

#### JELLIED FISH.

1½ cups cold flaked fish.

2 tablespoons chopped capers.

1 tablespoon granulated gelatin.

2 tablespoons cold water.

1 cup boiling water.

2 tablespoons lemon juice.

¼ teaspoon salt.

Mix the fish and capers. Arrange in a mold. Soak the gelatin in two tablespoons of cold water. Add the boiling water and stir until the gelatin dissolves, then add the lemon juice and salt. Pour this jelly carefully over the fish and set in a cool place to harden. Cut into portions and serve on lettuce with salad dressing. If desired celery or hard-boiled eggs cut in slices may be added to the fish.

## RABBIT IN CASSEROLE.

1 rabbit.

1/4 cup drippings or other fat.

1 cup hot water.

2 cups meat stock or thickened gravy. 1 tablespoon lemon juice.

Bit of bay leaf.

Dress the rabbit and separate into pieces at the joints. Season with paprika and salt. Cook in the fat until a golden brown. Transfer the meat to a casserole with 1 cup of hot water and cover. Bake in a moderate oven about 1/2 hour, then add the stock or gravy, lemon juice, and bay leaf. Continue cooking in the oven about 3 hours.

### BAKED HOMINY AND CHEESE.

1 tablespoon of butter substitute or 1 ½ teaspoon paprika.

1 tablespoon cornstarch or 2 tablespoons flour.

1 cup milk.

½ to 1 cup cheese, grated or cut fine.

2 cups cooked hominy.

1/4 cup bread crumbs.

1 teaspoon salt.

Make a sauce of the fat, cornstarch, salt, and milk. Add the cheese and paprika to the sauce, arrange the hominy in baking dish, and pour the sauce over it. Cover with crumbs and bake 20 minutes in a moderate oven.

The hominy and cheese may be arranged in layers and the white sauce poured over it if preferred.

## COTTAGE CHEESE AND NUT LOAF.

1 cup cottage cheese.
1 cup nut meats (use those locally grown).
1 cup stale bread crumbs.

1 tablespoon butter substitute, meat drippings or vegetable oils.

Mix the cheese, ground nuts, crumbs, lemon juice, salt, and pepper. Cook the onion in the fat and a little water until tender. Add to the first mixture the onion and sufficient water or meat stock to moisten. Mix well, pour into a baking dish and brown in the oven.

## VARIATIONS.

Two cups of cooked oatmeal may be substituted for the cheese and the bread crumbs.

One pound of beans, cooked and put through a sieve may be substituted for the nuts.

American cheese, grated or cut fine, may be used in place of cottage cheese.

The amount of liquid added will vary in each case. The seasoning may be varied to suit the case.

#### SAUCES.

Especial attention must be given to seasoning of dishes which have as their foundation beans, rice, or other foods having little flavor of their own.

Use peppers, onions, garlic, leek, celery, catsup, Worcestershire sauce, etc., for increasing flavor. Bean and nut loaves should be served with highly seasoned sauces.

## ITALIAN TOMATO SAUCE.

1/2 cup finely cut onion.
1/2 cup grated or cut furnip.
1/4 cup grated or cut carrot:

½ cup grated or cut carrot; ½ cup cut green peppers.

4 (ablespoons butter substitute or vegetable fat or drippings.

2 cups cooked tomatoes.

2 teaspoons salt.

2 tablespoons flour.

Cook vegetables (except tomato) in the fat until tender. Add tomato and salt, cook 5 minutes. Put through strainer, return to fire, add flour mixed with 2 tablespoons cold water, boil 5 minutes.

## PIMENTO SAUCE.

Force canned pimento through a strainer. Add ½ cup of this puree to 1 cup of white sauce.

## BROWN NUT SAUCE.

2 tablespoons drippings or vegetable-	1½ cups meat or vegetable stock or
oil.	milk.
2 tablespoons peanut butter.	½ teaspoon salt.
3½ tablespoons flour.	Few grains pepper.

Brown the fat, add peanut butter and when well mixed add flour and continue browning. Pour in the stock gradually, stirring constantly. Bring to the boiling point and add salt and pepper.

## FAT SAVING.

We use twice as much fat as some of the allies. The amount used here should be not more than  $\frac{3}{4}$  pound per person per week and 6 ounces for children under 10.

Use, butter as sparingly as possible on the table, except for children.

Do not use it in cooking.

Peanut butter, jellies, or a nut and fig paste are excellent substitutes. Use little pastry.

When you do make pies, use one crust instead of two.

Try the New England deep apple pie, with only a top crust.

Use the vegetable fats instead of animal fats in making the pastry.

If the vegetable oils are used, the quantity of fat may be reduced by one-third; that is, 2% tablespoons of oil to 1 cup of flour is sufficient. The oil itself helps to moisten the flour so that very little water is necessary. The dough should be made as dry as possible to make a tender pastry.

Do not fry in deep fat.

Bake croquettes in the oven.

Make meat loaf instead of meat croquettes.

Either do not use recipes calling for a large quantity of fat or try reducing the amount.

## RECIPES FOR CONSERVATION PIE CRUSTS.

#### CORN MEAL CRUST.

Grease a pie plate well. Cover with raw corn meal, giving the plate a rotating motion so that an even layer of the meal will stick to the plate about  $\frac{1}{16}$  of an inch in thickness. Fill the plate with pumpkin pie mixture. Bake in a hot oven.

## INDIVIDUAL PIES-OATMEAL CRUST.

2 cups finely ground oatmeal.

1 cup boiling water.

1 teaspoon fat.

Scald the oatmeal with the water. Add fat and mix thoroughly. Roll very thin and line small pie or tart tins with the mixture. Bake in a hot oven. Fill with apricot marmalade or other thick mixture. If desired, spread a meringue on top and brown in the oven.

## SUGAR SAVING.

Because of the present shortage of sugar it is necessary for each person to reduce his consumption of sugar to 34 pound per week. There are so many sweet foods that may be used in place of sugar that this should be no hardship.

Cut out candy.

Use less sugar in tea and coffee and substitute other sweetening wherever possible.

Try cooking breakfast cereals with chopped figs, dates, or raisins. You will not need to add any sugar at the table.

Use molasses, honey, corn, or other sirups for sweetening.

Apple sirup and concentrated cider.

Get Government pamphlet<sup>1</sup> giving directions for making sirup from apples and other fruits. Try some of these.

Use fresh fruits for desserts in place of rich pastries and sweet puddings. Bake apples or pears with a little water for several hours until a rich sirup forms. If more sweetening is desired add a little honey or molasses.

Stew dried prunes in the water in which they were soaked until the liquid is almost all boiled away. If more juice is wanted add water to the sirup. The long, slow cooking is necessary to develop a rich flavor.

Cut down the use of cake.

Do not use frosting unless you can make it without sugar. Either honey or maple sirup can be substituted for sugar in a boiled frosting.

When cake is made it should be not only wheat-saving, but sugar-saving and fat-saving. Try making cakes in which corn meal, corn flour, rye flour, potato flour, rice flour, or cornstarch is substituted for part of the wheat flour.

Use corn sirup, molasses, honey, and other sirups for part or all of the sugar.

A good working rule in making such substitution is to use 1 cup of sirup as equivalent to 1 cup of sugar and \(\frac{1}{4}\) cup of liquid. Corn sirup does not sweeten as much as molasses or honey.

## RECIPES FOR CONSERVATION SWEETS.

#### WAR CAKE.

1 cup molasses,

1 cup corn sirup.

1½ cups water.

1 package raisins.

2 tablespoons fat

1 teaspoon salt.

1 teaspoon cinnamon.

½ teaspoon cloves.

½ teaspoon nutmeg.

3 cups flour.

1 teaspoon soda.

2 teaspoons baking powder.

<sup>&</sup>lt;sup>1</sup> Department of Agriculture Yearbook, Separate 639.

Boil together for 5 minutes the first nine ingredients. Cool, add the sifted dry ingredients and bake in two loaves for 45 minutes in a moderate oven.

This cake should be kept several days before using. It makes about 20 to 25 servings.

If desired 1 cup of oatmeal may be used in place of 7/8 cup of flour.

## CORN MEAL COOKIES.

½ cup melted fat.	6 tablespoons sour milk
½ cup molasses.	½ teaspoon soda.
$\frac{1}{2}$ cup corn sirup.	2 cups corn meal.
1 egg.	1 cup wheat flour.

Combine the melted fat, molasses, sirup, beaten egg and milk. Sift the dry ingredients and combine with the liquid. Drop from a teaspoon onto a greased pan and bake in a moderate oven for 15 minutes. This makes 55 to 60 cookies about 2 inches in diameter.

## OATMEAL MACAROONS.

1 tablespoon fat.	¼ teaspoon salt.
3 cup corn sirup.	½ teaspoon baking powder.
2 tablespoons sugar.	1½ tablespoons flour.
1 egg.	2 teaspoons almond extract if de-
1½ cups oatmeal.	sired.

Combine the melted fat and the sugar and sirup, add the beaten egg and stir in the other ingredients. Drop from a teaspoon on greased baking sheets or pans and bake in a moderate oven about 15 minutes.

This makes 25 to 28 cookies about 2 inches in diameter.

## CORN-MEAL GINGERBREAD.

1 cup corn meal.	1 ½ teaspoon cloves.
1 cup wheat flour.	½ teaspoon cloves, 1 cup sour milk.
1 teaspoon soda.	1 cup molasses.
¾ teaspoon salt.	2 tablespoons shortening.
2 teaspoons ginger.	1 egg.1
1 teaspoon cinnamon.	

Sift together the dry ingredients. Combine the milk, molasses, melted shortening, and beaten egg. Add the liquid ingredients to the dry. Stir well. Bake in moderate oven.

Two cups of buckwheat flour may be substituted for the corn meal and flour in the above recipe. This will have the characteristic flavor of buckwheat. If it is too strong use only 1 cup of buckwheat and  $1\frac{1}{8}$  cups of white flour. Two and a half cups of rye flour may

also be substituted. In using rye or white flour a larger quantity is necessary because these flours absorb less liquid than do the corn meal and buckwheat.

## A LESSON IN BUYING.

Yet another method of studying food values is to be found in a consideration of weight, cost, and measure. This has been used by wise housekeepers for some time, but some women have been so impressed with the importance of buying by weight that they have almost lost sight of the expression of this weight in terms of measure. Very few women would think of buying bananas except by the pound, but not many realize that they will get only three medium bananas in a pound. Such a common commodity as potatoes of course are always purchased by weight, but it is very important to realize that there are 15 pounds of potatoes in a peck and that this same 15 pounds also represents about 50 medium-sized potatoes. In other words, if a housekeeper buys a pound of potatoes, she will get three medium-sized potatoes and a little one thrown in for full weight. A pound of prunes may be ordered without any special interest by the woman buyer, and she may get either large or small prunes depending upon the grocer's wishes, while a wise buver would stipulate the size wanted because she would know that in a pound of small prunes she would get about 40 prunes, while if they were large there would be about 28.

The following table shows the relation of weight and measure and also brings about the difference in the weight of contents of the cans of different sizes. In the case of canned pork and beans, the No. 1 can, cost 15 cents, weighs 11 ounces, while the No. 2 can, cost 20 cents, weighs 21 ounces. In the latter can, the cost of the additional 10 ounces is 5 cents. If the housekeeper uses condensed milk in quantity, it is better for her to buy the 16-ounce can, as the cost per ounce is much less than if she purchases the 6-ounce can. Of course, it may be better economy for the woman to buy the No. 2 can of vegetables, but this is true only when the No. 2 can gives her exactly enough for one meal for her family. If there is a serving left over, it is evidently wiser for her to buy the No. 3 can, because then she has enough for two meals, and, with different methods of preparation, will run no risk of monotony.

It seems clear, then, that several elements enter into the wise buying of food. One who enlists in that service ought to have a clear conception of the relation of these units of weights, cost, and measures.

## TABLE OF WEIGHTS AND MEASURES.

Material.	Weight.	Measure.
Apricots	Lnound	75 pieces,
Bananas.		3 large.
Beans, navy		2½ cups.
Beans, canned:		23 cups.
String No. 2	1 pound 2 ounces	13 cups drained.
Lima No. 2.	1 pound 4 ounces.	Do.
3read:	1	
Graham.	12 ounces	14 3-inch slices.
Rye, Ward's	1 pound	
White, Ward's	1 pound 2 ounces	16 %-inch slices.
Whole wheat, Ward's	1 pound 4 ounces	15 %-inch slices.
Butter	1 pound	48 squares.
Milk, condensed	6 ounces	g cup.
	16 ounces	17 cups.
Molasses No. 2½	2 pounds 6 ounces	24 cups.
Pin€apple;		
No. 1 flat.	9 ounces.	5 slices.
No. 2 tall.	1 pound 3 ounces	10 slices.
Prunes:	1	10
Small	1 potuid	
Large Capioca:	do	28–30 prunes.
Instant	10 ourses	13 00000
Minute.		13 cups. Do.
Pearl	·uo	

<sup>1</sup> ounce of sugar measures 2 level tablespoons.  $\frac{1}{3}$  ounce of butter measures 2 level teaspoons. 2 ounces of flour measures  $\frac{1}{2}$  cup.

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